

September 13, 2017 15:30 ET

HURRICANE IRMA MANAGEMENT REPORT

Information contained in this report reflects HQ and regional reporting from the most recently completed operational period as well as other reports provided by HQ, regional and interagency sources.

National Incident Management Objectives

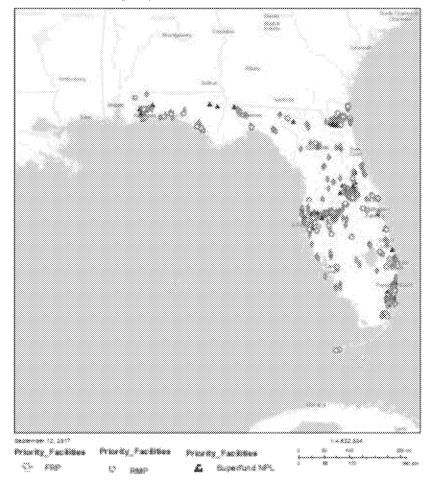
- Objective 1: Ensure that health and safety of the EPA response is considered at all times.
- Objective 2: Establish an incident management structure and processes employing the Incident Command System to enable effective overall management of the event with deployment of resources (staff and equipment) in a rapid, aggressive and well-coordinated manner.
- Objective 3: Ensure prompt Review and Processing of Fuel Waiver requests.
- Objective 4: Prepare for and provide Rapid Assessment of Industrial facilities as requested by the State or under EPA's statutory program responsibilities for CERCLA Superfund, RMP and FRP facilities. Working with our state partners, contact industrial sources within the impacted area to determine their operational status and determine what support can be provided with the monitoring of the start-up of industrial sources.
- Objective 5: Prepare for and provide Rapid Assessment & Technical Assistance Drinking Water & Wastewater facilities as requested by the State or local government. EPA will support our state partners in contacting drinking water and waste water systems.
- Objective 6: Prepare a Sustained Response Plan that outlines the resource and equipment needs for a long duration response.
- Objective 7: Activate the Agency's Crisis Communication Plan to insure effective and efficient coordination of all incident communications.
- Objective 8: Encourage a collaborative federalism approach, where national, state and local governments interact cooperatively and collectively to solve common problems.
- Objective 9: Begin Agency internal and external coordination, under the National Disaster Recovery Framework, regarding Recovery Support Functions in which EPA is likely to be involved.

Executive Summary

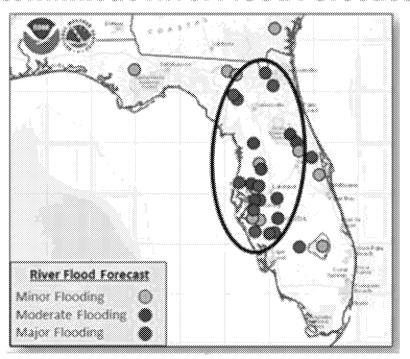
- Hurricane Irma weakened and is now a Post-Tropical Depression.
- On September 13th, EPA is issuing a letter to the Florida Department of Environmental Protection (DEP) providing certainty to Florida DEP that EPA will not pursue enforcement action over post-Irma storm water discharges at facilities with National Pollution Discharge Elimination System (NPDES) permits.
- The Florida State Emergency Operation Center (FSEOC) has identified 185 priority facilities within 23 counties. The list is composed of a combination of facility types (e.g., Facilities Response Plan and Risk Management Plan).
- On September 12th, the Region 4 (R4) Superfund Remedial (SFD) group deployed six teams to Florida to conduct rapid assessment at all National Priority List (NPL) sites within the State. Rapid assessments will be conducted on September 13th.
- EPA discussed debris management, landfill issues, and debris burning with the President of the Puerto Rico Environmental Quality Board (PREQB)/Secretary of the Department of Natural and Environmental Resources (PR DRNA) as well as with the Director of the Puerto Rico Solid Waste Management Authority (SWMA). EPA coordinated with the Florida Department of Environmental Protection (FDEP), Florida Department of Transportation (FDOT), FEMA, and the United States Corps of Engineers (USACE) concerning the development and implementation of a Debris Management Plan. Key issues discussed were: the management of hazardous waste, household hazardous waste and asbestos; air curtain incinerators; tribal concerns; and environmental justice areas.
- On September 10th, EPA issued a No Action Assurance (NAA) letter for all Florida power plant facilities in response to an emergency request for Hurricane Irma related relief. EPA will exercise its discretion not to pursue enforcement for violations of Title V and/or NPDES permit requirements at electric generating units, located in the State of Florida. The NAA terminates at 11:59 PM on September 26th.
- A disaster declaration for all of Florida was made on September 10th and parts of Alabama on September 11th. On September 8th, Seminole Tribe of Florida received an Emergency Declaration (EM-3388) from the U.S. President.

The maps below, from left to right are from the R4 Situation Report (09:00, September 12th) and the FEMA Senior Leadership Briefing Post-Tropical Cyclone Irma (17:00, September 12th) and represent priority sites and potential for continued flooding.

Hurricane Irma Emergency Response - FRP and RMP facilities and NPL Sites



Deterministic River Flood Forecasts



Regional Mission Assignments and Funding

- ESF-10 MAs have been issued to provide Hazard Assessment Response teams for R4. Targeted facilities will be identified and assessments directed through the ESF-10 desk at the Florida State Emergency Operation Center (SEOC). The request is being divided between EPA and the U.S. Coast Guard (USCG) with EPA receiving \$525,000 and USCG receiving \$150,000. The period of performance is from September 10th to 25th.
- R4 is currently operating under a Federal Operations Support (FOS) MA for \$35,000 to support staffing the ESF-10 desk at the FEMA Regional Response Coordination Center (RRCC) and the Florida SEOC.

Mission Assignment Number	Funding Amount	Description of Assignment
VI-17090102-EPA-01	\$10,000	ESF-10 support of the FEMA's RRCC in Colts Neck, NJ
PR-17090102-EPA-01	\$20,000	Activate EPA to FEMA R2 RRC and other locations as necessary for PR (prelandfall)
4335DR-VI-EPA-01	\$100,000	Activate EPA to FEMA R2 RRC in Colts Neck, NJ to support FEMA response ops
3383EM-VI-EPA-01	\$75,000	Activate EPA to FEMA RRCC, JFO, EPA REOC, State EOC, PDA and NRA Teams and other coordination venues to support FEMA response ops in VI
4335DR-VI-EPA-02	\$508,000	To perform assessment of oil and hazardous materials releases, contaminated debris and other environmental events following landfall in USVI
3384EM-PR-EPA03	\$508,000	To perform assessment of oil and hazardous materials releases, contaminated debris and other environmental events following landfall in PR
3384EM-PR-EPA-01	\$75,000	Activate EPA to FEMA R2 RRCC, EPA REOC, State EOC, JFO, PDA, and RNA Teams and other coordination venues to support FEMA response in PR
FL-17083101-EPA-01	\$35,000	Activate Environmental Protection Agency (EPA) ESF-10 support to the FEMA Region IV Regional Response Coordination Center (RRCC)
3385EM-FL-EPA-01	\$525,000	Activate Federal Hazardous Assessment Response Team w/appropriate resource support to conduct assessments at hazardous substances within R4
3385EM-FL-COE-SAD-10	\$150,000	Federal Operations Support
Total Funds	\$2,006,000	

Number of Regional Personnel Involved in Response

Туре	R2 Personnel	R4 Personnel	Total Regional Personnel
EPA	84	42	126
Contractors	11	2	13
Totals	95	44	139

Region 2 Significant Activities:

- EPA Region 2 (R2) was activated by FEMA to respond to Hurricane Irma impacting the USVI and Puerto Rico. EPA is part of Emergency Support Function-10 (ESF-10) and EPA personnel have deployed to St. Thomas, St. Croix and St. John in the USVI, and Puerto Rico, including the islands of Vieques and Culebra.
- The R2 REOC is activated with an Incident Command System (ICS) structure in place. R2 has activated the Regional Incident Coordination Team (RICT).
- R2 EPA and contractor personnel teams have deployed to both Puerto Rico and the USVI. Teams will focus on assessing any immediate threats from hazardous substance releases and oil spills, orphan hazardous containers, household hazardous waste, contaminated debris, and drinking water/wastewater (DW/WW) issues. EPA will follow-up on the conditions at Superfund NPL and removal sites, oil sites, and regulated facilities.
- On September 11th, FEMA issued MAs to EPA to maintain REOC ops and deploy assessment teams to the impacted areas.
- As of September 12th, USVI Waste Management Authority (USVIWMA) has not yet identified debris staging areas.
- EPA Criminal Investigation Division (CID) and National Criminal Enforcement Response Team (NCERT) special agents have deployed to the USVI to provide law enforcement support to EPA R2 On-Scene Coordinators (OSCs) conducting environmental assessments on the islands.
- USACE has requested that EPA assist them as a participant on their debris team.
- There is widespread damage to boats in marinas with likely small scale oil spills. R2 is coordinating with USCG to identify any needs for assistance. EPA OSCs are conducting field assessments in Puerto Rico. OSCs are also mobilized to the USVI to conduct environmental assessments. Two assessment teams will focus on assessing potentially contaminated debris in conjunction with USACE. Two assessment teams will begin to assess oil and chemical fixed facilities.
- EPA is conducting debris assessments and coordinating with USACE, FEMA, and the USCG to develop debris plans with Puerto Rico and USVI. Debris Assessment Teams were deployed in both Puerto Rico and the USVI.

Superfund and Oil Sites:

R2 has received post-Irma reports from five NPL, Removal, and Oil Response Sites. All five sites report minimal impacts, with some sites reporting power loss. An OSC has conducted assessments of active Superfund sites. The table below provides details.

OSCs are deployed to the following locations:

- Four OSCs were mobilized on September 9th to initiate environmental assessments in USVI. Two OSCs will focus on assessing potentially contaminated debris. The third OSC will begin to assess oil and chemical fixed facilities. A fourth OSC will work facility assessment activities.
- No major oil spills or threats of releases of hazardous substances have been reported to date. There is widespread damage to boats in marinas and likely widespread smaller oil spills.

			S (NPL, Removal and	Oil)		
	ı		erto Rica			
Site	Туре	Phase 1	Phase 2		Phase 3	All Phases Completed
		Post-Storm Assessment	Site Inspection Needed	Inspected	Additional Response Acti	
Atlantic Fleet Weapons	NPL	09/08/17	No	N/A	No	09/08/17
Juncos Landfill	NPL	09/07/17	No	N/A	No	09/07/17
Upjohn Facility	NPL	09/07/17	No	N/A	No	09/07/17
Arecibo Battery Recycling Corp.	Removal & NPL*	09/05/17	No	N/A	No	09/05/17
Ç <u>oroza</u> i Battery	Removal &. NPL*	09/05/17	No	N/A	No	09/05/17
Cabo Rojo Groundwater	NPL	09/11/17	No	N/A	No	09/11/17
Çiçira Groundwater	NPL	09/11/17	No	N/A	No	09/11/17
Dorado Groundwater	NPL	09/11/17	No	N/A	No	09/11/17
Fibers Public Supply Wells	NPL	09/11/17	No	N/A	No	09/11/17
Hormigas Groundwater	NPL	09/11/17	No	N/A	No	09/11/17
Maunabo Urbano Public Wells	NPL	09/11/17	No	N/A	No	09/11/17
Papelera Puertoriguena, NPL		09/11/17	No	N/A	No	09/11/17
Pesticide Warehouse 1	NPL	09/11/17	No	N/A	No	09/11/17
Pesticide Warehouse (ii)	NPL	09/11/17	No	N/A	No	09/11/17
San German Groundwater	NPL	09/11/17	No	N/A	No	09/11/17
Scorpio Recycling	NPL	09/11/17	No	N/A	No	09/11/17
Vega Alta Public Supply Wells	NPL	09/11/17	No	N/A	No	09/11/17
Vega Baja Solid Waste Disposal	NPL	09/11/17	No	N/A	No	09/11/17
Guayanilja Bay Oil Spill	Oil Response	Not assessed				
Puma Caribe (CAPECO)	Oil Response	09/11/17	No	N/A	No	09/11/17
		U.S. VI	RGIN ISLANDS			
TUTU Well Field	NPL	09/08/17	No	N/A	No	09/08/17
Krum Bay Oil Spiil at WAPA Facility	Oil Response	09/08/17	No	N/A	No	09/08/17
Cruz Bay Oil Tank	Oil Response	09/11/17	Yes			

^{*} These are Sites that have both, a Removal and Remedial program action. Only one assessment will be conducted per Site.

Regulated Facilities

- The Regulated Facility Team (RFT) continues to receive email and telephone responses to EPA's post-Irma facility damage, oil spill, and chemical release assessment efforts. As facility personnel begin obtaining access to their facilities, they continue to report no spills, no chemical releases, and no upset conditions. High-risk facilities in Puerto Rico and the USVI, such as Puma Energy, Hovensa (oil storage hub), Puerto Rico Aqueduct and Sewer Authority (PRASA), and USVI Water and Power Authority (WAPA) have reported no significant damage to their oil and/or chemical operations. The RFT has contacted the VI Department of Public and Natural Resources and provided a brief update on the status of major oil and chemical facilities. The RFT is prepared to provide technical assistance to field assessment teams currently being deployed.
- One regulated facility had damage to security and air monitoring equipment presenting a potential health risk to workers as well as the businesses. Ruptured chlorine tanks at the site have also been identified. The Fixed Facilities Assessment Team (FFAT) Leader is in communication with PRASA personnel.

PUERTO RICO

Facility Type	Facility Type Sites Identified		Post Storm Remote Assessment	Post Storm Field Assessment	Follow-up Action Required		
RMP	56	56*	53 %	2	0		
FRP	22	22*	21^	Q.	0		
SPCC (non-FRF)	PCC (non-FRF) 232°		15	3	ō.		
Total	310°	310°	89:	3	Ÿ		

^{*}Pre-Hurricane email requested facilities to self-identify any pre-existing compromised conditions (construction at process areas, tank maintenance, etc.). No facilities reported pre-existing compromised conditions.
Based on Post-Hurricane oil spill/themical release/damage assessment email and phone calls. No facilities have reported oil spills, chemical releases, or unset/damage conditions that could lead to oil spill or chemical releases.

U.S. VIRGIN ISLANDS

Facility Type	Sites Identified	Pre-Storm Assessment	Post Storm Assessment	Post Storm Field Assessment	Follow-up Action Required		
rap	1		1	1	0		
FRP	8	6*	6	3	0		
SPCC (sos-FRP)	PCC (sos-FRP) 578		3.	3	8		
Total 64		64°	15	g g	9		

Pre-Hurricane email requested facilities to self-identify any pre-existing compromised conditions (construction at process areas, tank maintenance, etc.). No facilities reported pre-existing compromised conditions.

Drinking Water / Wastewater (DW/WW) Assessments:

<u>Puerto Rico Drinking Water Status:</u> As of 11:00 on September 13th, R2 estimates 3.03% of households are without drinking water services from PRASA. PR remains under a boil water notice. Puerto Rico Department of Health (PRDOH) is back to functionality and is going to start the coordination of inspections to check operational status of the drinking water systems. Water Support Group in the REOC is coordinating with PRDOH in order to avoid duplication of effort.

^{*} This number reflects the number of known non-FRP SPCC facilities believed to be active

Based on Post-Harricane oil spill/chemical release/damage assessment ensail and phone calls. No facilities have reported oil spills, chemical releases or noset/damage conditions that could lead to oil spill or chemical release.

There is no SPCC submission requirement. This number reflects the number of known non-FRP SPCC facilities that are believed to be active based on impection history.

Non-PRASA Systems: EPA will continue to assist PRDOH in contacting the Non-PRASA systems. Two communities have been identified in need of generators: La Cuchilla, in San Lorenzo and Jaguey Chiquito in Aguada. PRDOH has requested that EPA prioritize by population and focus mostly on groundwater systems. Non-PRASA communities in need usually contact their municipalities for assistance.

<u>USVI Drinking Water Status</u>: On September 11th, VIWAPA started operating the Reverse Osmosis plant in St. Thomas. Boil water notice was issued for Saint Thomas and Saint John. Chlorination system is up and running.

<u>PR Drinking Water Priorities</u>: The Water desk is working with PRDOH and PRASA to prioritize federal assistance for drinking water facilities and essential parts of the drinking water distribution system for repair.

System ID	Name	Population Served	Status
PR0666056	La Cuchilla	400	No power - need a
			generator
PR0523105	Acueducto Dona Elena	1016	Assessment pending
PR0604046	Mulitas Centro	1000	Assessment pending
PR0613046	Turabo Arriba	1200	Assessment pending
PR0613366	Acueducto Sector La	2100	Assessment pending
	Sierra		
PR0677016	Acueducto Rural Tejas	2460	Assessment pending
PR0677146	Calabazas Arriba	1800	Assessment pending

Wastewater Treatement Plants

All PRASA wastewater treatment plants are in service. However, 15 of the nearly 800 sanitary pump stations are overflowing sewage due to problems caused by the hurricane.

<u>U.S. Virgin Islands:</u> The USVI Department of Planning and Natural Resources (DPNR) reports that all St. Croix drinking water and wastewater facilities are fully functional. St. Croix is currently under a Drinking Water advisory due to the heavy rains. St. Croix has a fully functional testing lab. DPNR reports (based on limited information) that St. Thomas and St. John are under a Boil Water advisory. Some of the drinking water storage tanks in St. Thomas survived the storm. VIWAPA expects to commence gravity feeding drinking water on St. Thomas. On September 13th, the Caribbean Environmental Protection Division (CEPD) requested that OSCs deploy to St. Thomas to assess the wastewater treatment plants and pump stations. St. Thomas laboratory is currently offline due to lack of power and needs a generator. There is no information available on the drinking water and wastewater situation in St. John.

Environmental Unit:

The EU continues to prepare for potential sampling activities once the branch teams in PR and the USVI complete their reconnaissance activities.

Region 4 Significant Activities:

- EPA coordinated with the Florida Department of Environmental Protection (FDEP), Florida Department of Transportation (DOT), FEMA, and the USACE concerning the development and implementation of a Debris Management Plan. Key issues discussed relative to EPA were the management of hazardous wastes and asbestos; air curtain incinerators; tribal concerns; and environmental justice areas.
- The REOC is activated at Level 3.

Superfund and Oil Sites:

- The R4 Emergency Response program coordinated the removal of three drums at Anodyne, Inc. Superfund Site containing Investigation Derived Waste (IDW) generated during a recent sampling event.
- On September 13th, the R4 SFD group deployed six teams to Florida to conduct rapid assessment at all NPL sites within the State. Three additional NPL Rapid Assessment Teams are deploying to Georgia and South Carolina to conduct rapid assessments at all NPL sites.

Regulated Facilities

• Mosaic Fertilizer Phosphoric Acid Spill in Bartow, Polk County, Florida – The facility reported that heavy rains caused a release of process water containing 2% phosphoric acid from a lined impoundment. The release did not impact water and did not leave the facility. Facility personnel are pumping the release material back into the lined impoundment.

Drinking Water / Wastewater (DW/WW) Assessments:

- The EPA R4 WPD received funding \$75,000 under an ESF-3 MA sub-task to support the USACE drinking water and wastewater facility assessments. The request specified providing three technical experts for 14 days. WPD deployed teams to Tallahassee on September 12th to support the USACE water sector mission.
- The WPD compiled an inventory of community drinking water systems (CWS) and publicly owned wastewater treatment plants (POTW) to be used for post-storm damage assessment within R4.
- The EPA continued to coordinate with the FDEP and the USACE relative to Water and Drinking Water issues. Additionally, the USACE has indicated they may request R4 assistance with sampling activities associated with bringing the Water/Drinking Water facilities back on line.

EPA R4 WPD compiled an inventory of community drinking water systems (CWS) and POTW that may be used during post storm damage assessment in Florida:

Total Number of Community Drinking Water Systems (CWS) and Total Population Served in Florida									
State or Tribe Number of CWS* Population Served									
Operational	417	14,385,261							
Partially Operational	17	737.058							
Non Operational	16	7,881							
Unknown	1.191	4.865,997							
Totals	1,641	19,996,197							

^{*} The State of Florida only tracks CWSs that serve a population greater than 3,300; therefore data for CWSs that serve less than 3,300 is not available.

Operational. Facility producing safe** drinking water for greater than 90% of customers under normal operating conditions.

Partially Operational: Facility producing safe drinking water under adverse conditions and/or supplying less than 90% of customers.

Non Operational. Facility not producing or supplying safe drinking water.

Unknown: Status of facility unknown at this time.

Treatment Plants (POTWs) State or Tribe NPDES Permitted Facilities State Permits (Nor									
	POTW	Non-POTW (Industrial)	NPDES)						
Operational:	49	27	174						
Partially Operational:	3	2	18						
Non Operational:	0	4	20						
Unknown:	92	209	1,809						
Totals:	144	242	2.021						

Operational: Facility & associated collection system is properly conveying, and effectively providing wastewater treatment, in accordance with applicable permit conditions and regulations. (Operating on full or backup generator power.)

Partially Operational: Facility and/or associated collection system is properly conveying and providing wastewater treatment at a compromised capacity, i.e. one or more treatment train components are non-operational, one or more lift stations are non-operational, etc.

Non Operational. Facility and/or associated collection system is not providing wastewater treatment in accordance with applicable permit conditions and regulations

Unknown: Status of facility naknown at this time

		Table 4							
Priority Facility Sites in Florida									
Drinking Water	WWTP	NPL	RMP	FRP					
1,641	386	90	263	121					
	***************************************	*******							

Notes:

WWTP - Wastewater Treatment Plant NPL - National Priority List sites FRP - Facility Response Plan facilities RMP - Risk Management Plan facilities

^{**} Safe Drinking Water is defined as water that satisfies all State & Federal requirements.

EPA Headquarters Significant Activities:

The HQ EOC is activated to Level 1 in support of the R2 and R4 responses to Hurricane Irma. The HQ EOC is coordinating on several levels with R2, R4, and other Federal agencies. The HQ EOC has deployed personnel to the FEMA NRCC to staff the ESF #10 desk. EPA Senior Management that comprise the Policy Coordination Committee (PCC) developed and issued senior management objectives that form the basis of field strategy and tactics in response to Irma.

Personnel	AO	OAR	OCFO	OCSPP	OECA	OEI	ogc	OLEM	OP	ORD	ow	ATSDR	Totals
Employees	1	0	0	0	3	1	1	15	1	1	1	1	25
Contractors	0	0	0	0	0	4	0	3	0	0	0	0	7
TOTAL	1	0	0	0	3	5	1	18	1	1	1	1	32

Other EPA Activities:

Fuel Waivers:

EPA continues to review requests for fuel waivers as needed.

OECA Civil/CID:

On September 10th, EPA issued a No Action Assurance (NAA) letter for all Florida Power Plant facilities in response to the emergency request for Hurricane Irma related relief. EPA will exercise its discretion not to pursue enforcement for violations of Title V and/or NPDES permit requirements at electric generating units located in the State of Florida. The NAA terminates at 11:59 PM on September 26th.

EPA also exercised its enforcement discretion on September 10th for Tampa Electric Company to operate without meeting all pollution controls at three of its facilities in order to maintain the supply of electricity to customers and critical facilities in Florida and to facilitate the expeditious restoration of lost electrical service caused by Hurricane Irma. EPA believes that the exercise of enforcement discretion in these circumstances is in the public interest and will help address the emergency circumstances in Florida.

EPA CID has deployed 12 EPA CID and NCERT special agents to the USVI to provide law enforcement support to EPA R2 OSCs conducting environmental assessments on the islands.

Communications:

- On September 13th, EPA issued a letter to the Florida Department of Environmental Protection (DEP) providing certainty to Florida DEP that EPA will not pursue enforcement action over post-Irma storm water discharges at facilities with National Pollution Discharge Elimination System (NPDES) permits. The press release and correspondence are available at: https://www.epa.gov/newsreleases/epa-provides-certainty-florida-dep-over-stormwater-discharges-facilities-impacted.
- On September 12th, EPA issued a press release with updated information regarding Agency response to Hurricane Irma, it is available at: https://www.epa.gov/newsreleases/epa-irma-update-tuesday-september-12-2017.
- The HQ EOC Public Information Office is working with OLEM to develop fact sheets to inform people about issues related to returning after the storms. Topics covered include: household hazardous waste, construction debris, etc.
- BuzzFeed News inquired about the specifics of EPA assessments on NPL sites and any damage they may have sustained. OPA answered this press inquiry.
- The Hurricane Irma website is live at https://www.epa.gov/hurricane-irma.